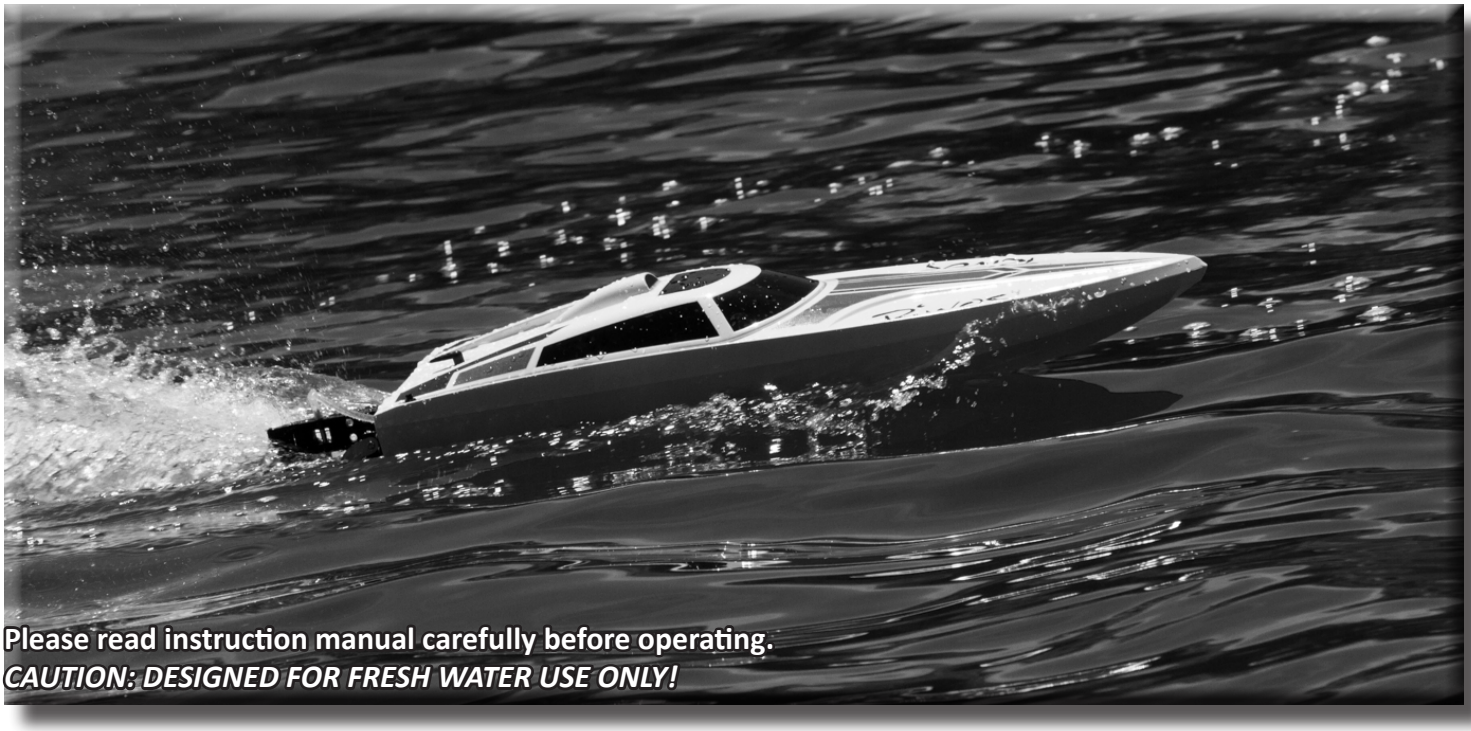
HELION

Rivos

Operating Instructions

2.4 GHz Radio Controlled Model Boat



SPECIFICATIONS:

Hull length:	24.25” (615.95mm)
Overall length:	28” (711.2m)
Height:	4.5” (114.3mm)
Battery:	2600mAh 7.2 V Nimh
Charger:	7.2V 300mAh NiMh AC charger
Transmitter:	2CH 2.4GHz
Motor:	Brushed 550
On-Board Electronics:	30A water cooled ESC, full size steering servo, 2.4GHz receiver

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Introduction

The Helion Rivos will have you rocketing across your local pond or lake and making sharp turns like a pro in no time. It's the fastest, most exciting RC boat in its class! The Rivos' speed is generated by the included powerful water-cooled 550-size motor and water-cooled 30A ESC. Not fast enough out-of-the-box for you? No problem, with the optional drop-in brushless motor/ESC combo and 3-cell LiPo battery, we have your need for speed covered.

The Rivos is a RTR (Ready-To-Run) boat that comes 100% factory-assembled and includes a durable ABS hull, with a choice of two pre-printed race-inspired graphics. The included 2-channel, 2.4 GHz radio features fully proportional steering and throttle control. For power, you get a 2600mAh 7.2 V Nimh battery, plus a charger that conveniently plugs into any AC outlet. The Rivos even includes the AA batteries needed to operate the transmitter and a display stand to proudly show it off when you're not out running it. With nothing extra to buy, you can be racing your Rivos across your local pond within minutes of opening the box!

Safety Precautions

Failure to use this product in the intended manner as described in the following instructions can result in damage and/or personal injury. A Radio Controlled (RC) boat is not a toy! If misused it can cause serious bodily harm and damage to property.

Keep items that could become entangled in the propeller away from the propeller, including loose clothing, tools, etc. Be especially sure to keep your hands, face and other parts of your body away from the propeller. As the user of this product you are solely and wholly responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

This model is controlled by a radio signal that is subject to possible interference from a variety of sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance from objects and people in all directions around your model as this will help to avoid collisions and/or injury.

- Never operate your model if the voltage of the batteries in the transmitter is too low.
- Always operate your model in an open area away from obstacles, people, vehicles, etc.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable batteries, etc.).
- Keep all chemicals, small parts and all electronic components out of the reach of children.
- Moisture causes damage to electronic components. As much as possible, avoid water exposure to all internal electronic components, parts, etc.
- Never lick or place any portion of the model in your mouth as it could cause serious injury or even death.

FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

The associated regulatory agencies of the following countries recognize the noted certifications for this product as authorized for sale and use: USA

Contents

Rivos Boat RTR	
Not Available Separately	AA Batteries (4)
HLNB0035	7.2V, 2600mAh NiMh Battery
HLNB0040	7.2V 300mAh NiMh AC charger
HLNB0045R/B	2-Channel 2.4GHz Transmitter, Red/Blue

Battery Install and Charging

Plug the charger into suitable AC power source and plug the male T-connector from the charger into the female connector on the battery.

For faster charging we suggest purchasing a Radient charger - either the Primal Charger (RDNA0001) or Ascend Charger (RDNA0002).

Available exclusively at your local Hobby Town store.

Install Batteries in Transmitter

Slide the battery door off of the bottom of the transmitter and install the 4-AA batteries. Make sure to check the orientation of the cells, the correct orientation is indicated inside the battery box. Slide the battery box door back in place.

Charge 6-Cell Drive Battery

Locate the AC wall charger and the 2600mAh Nimh battery pack.

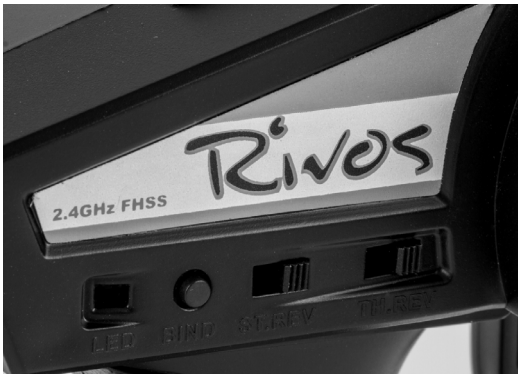
For use with NiMh Batteries **ONLY** Never attempt to charge a LiPo battery with this charger.

Transmitter Details

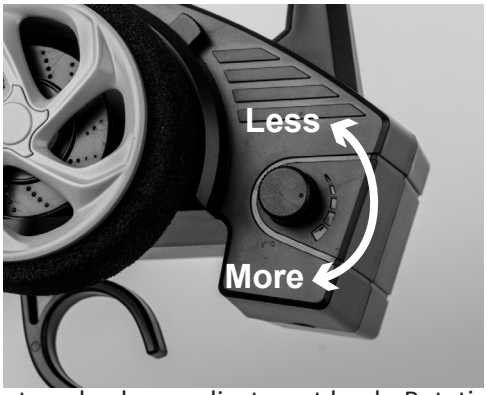
The Rivos includes a pistol grip 2-channel transmitter equipped with 2.4GHz technology, digital trims, servo reversing and travel volume adjustment on the steering channel

Power Switch is located on the upper end panel of the pistol grip. Slide the switch UP for ON and DOWN for OFF. When ON the power indicator LED will light green.

Adjusts the proportion of throttle signal on either side of the center trigger position. When used with the brushless upgrade you can pick which proportion of forward/reverse you prefer. We recommend using the 70/30 position for most applications.



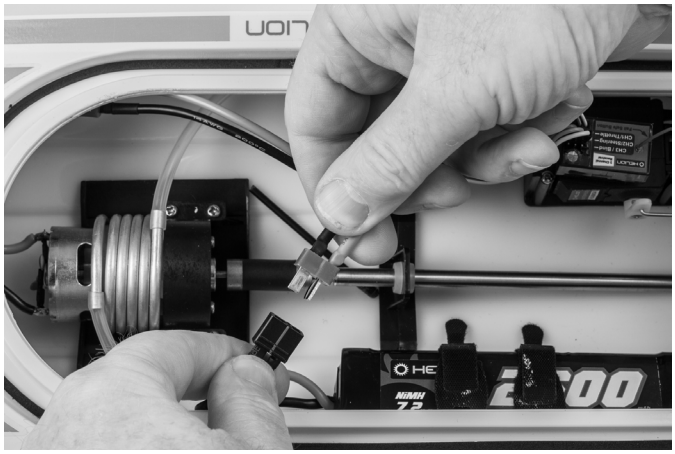
Servo reversing switches. If the direction of travel on the rudder is backwards, slide the steering reverse switch to the other position. Same principle for the throttle reverse switch.



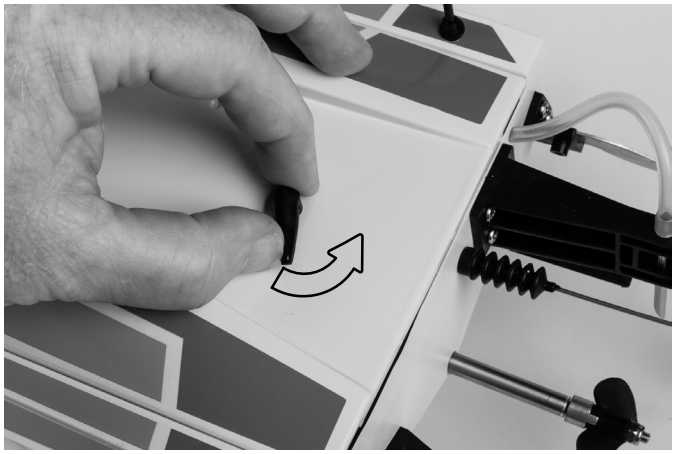
Rudder travel volume adjustment knob. Rotating the knob clockwise will give you greater range in rudder movement. Counter-clockwise will reduce the range of rudder movement. Adjust to suit your driving style and preferences.

Preparing your Boat

Slide your fully charged drive battery into the hull and strap in place with the hook and loop fasteners.



With your transmitter turned on, plug the drive battery into the speed control.



Place the top hatch in position and rotate the latch to secure.

Important

Do not arm the boat motor until you have placed the boat into the water.

Once in the water, arm the motor by pushing the throttle trigger forward and then pulling it to the rear.

Binding

The Rivos comes already bound. If however you need to re-bind follow these instructions.

With the transmitter switched OFF

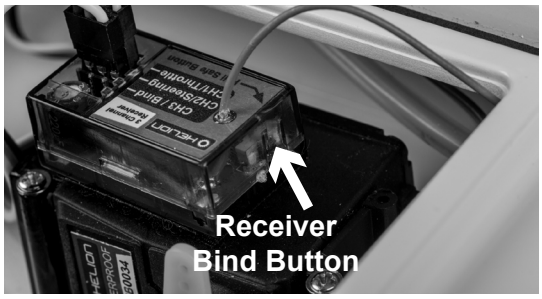
Press and hold the bind button on the receiver while you are plugging the drive battery in. The red LED on the receiver will blink rapidly indication that it is in bind mode.

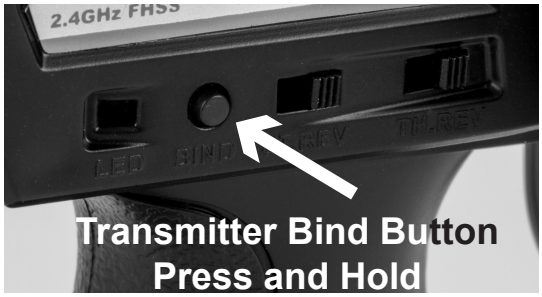
Press and hold the bind button on the transmitter while sliding the power switch ON.

Release the button after the transmitter powers up.

Within approximately 5 seconds the Rivos will link and the rudder will center and LED will go solid.

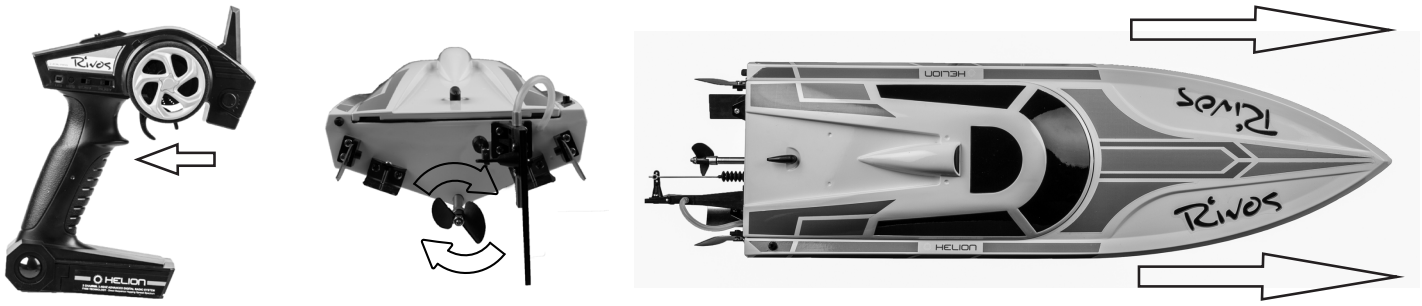
You are ready to run.



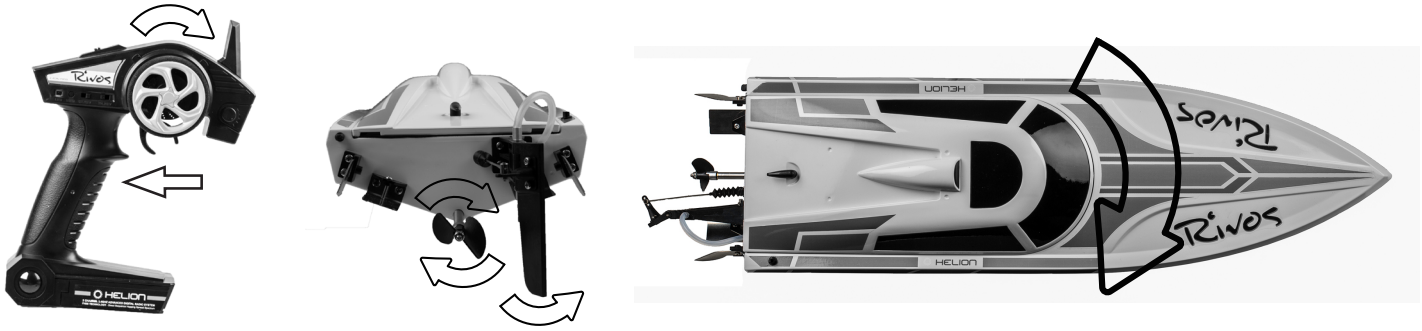


How to Operate your Boat

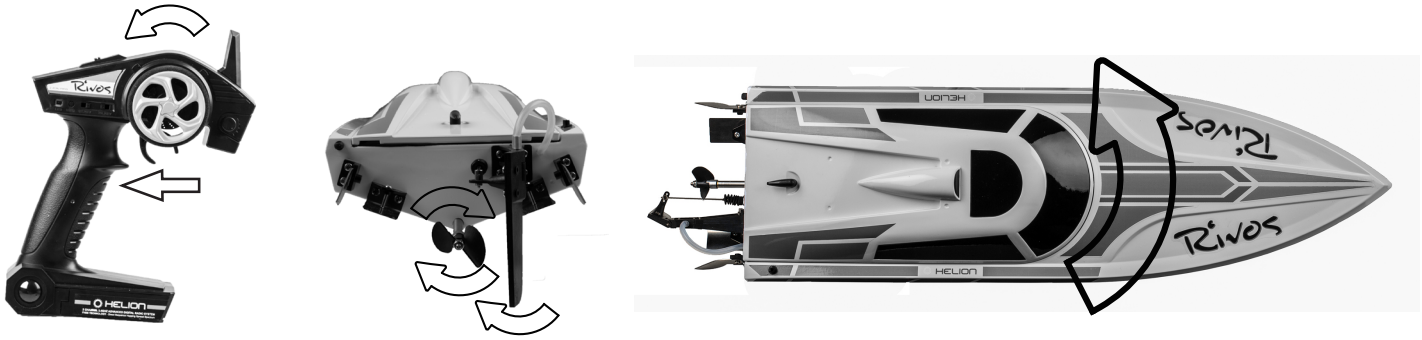
Place your boat in the water.



Push the trigger slightly away from you to arm the motor and then pull it towards you to make the boat go forward. The speed control is proportional, the farther you pull it the faster the boat will go. Release the trigger to stop.



To initiate a right turn, rotate the steering wheel clockwise while holding the trigger to the speed setting you desire. If the steering is not tight enough, increase the travel volume by rotating the travel volume knob clockwise till you reach the desired amount.



To initiate a left turn, rotate the steering wheel counter-clockwise while holding the trigger to the speed setting you desire. If the steering is not tight enough, increase the travel volume by rotating the travel volume knob clockwise till you reach the desired amount.

Important Battery Cautions

The Rivos boat with stock brushed motor can be powered by:

- Stock 6-Cell 7.2V 2600mAh NiMh battery
- 2-Cell LiPo 7.4V (1500-3000mAh)

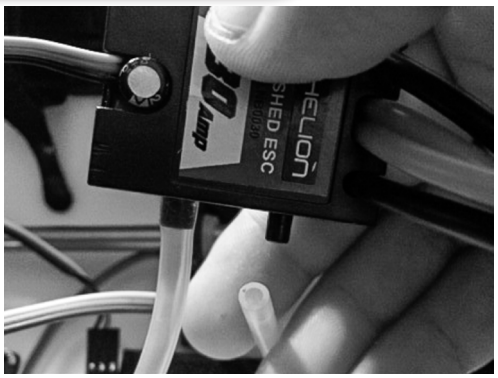
Never use a 3-cell 11.1V LiPo battery with the stock brushed motor. Damage to the motor and controller NOT covered by the warranty WILL occur!

The Rivos boat with upgrade brushless motor can be powered by:

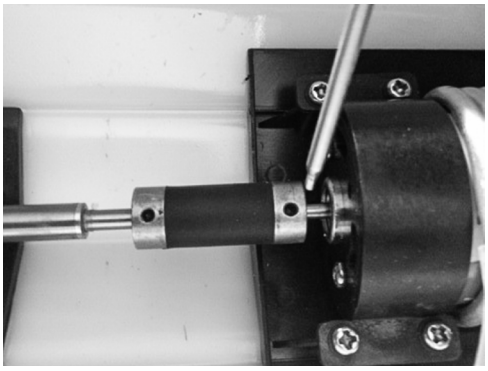
- Up to a maximum of a 3-cell LiPo battery

Brushless Motor Upgrade

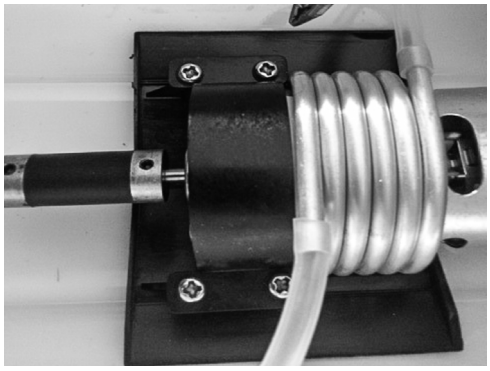
Disconnect the brushed speed control from the throttle channel of the receiver.



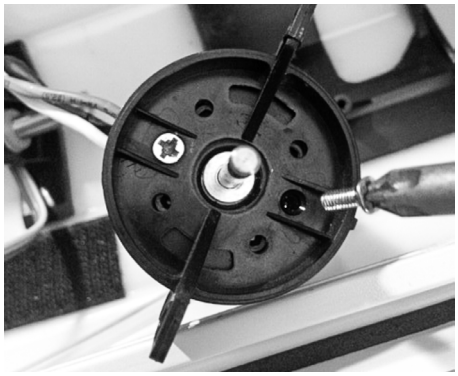
Disconnect both water lines from the brushed speed control.



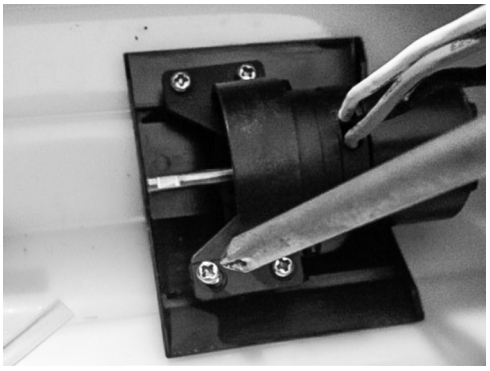
Loosen the two set screws on the motor coupler.



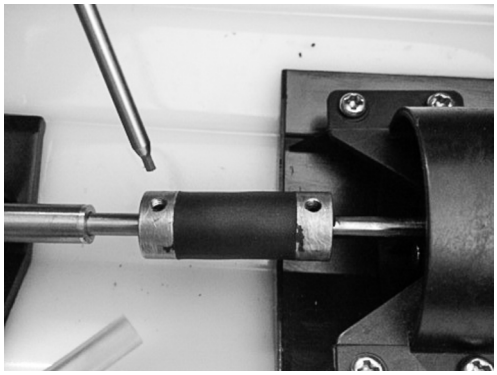
Remove the four phillips screws from the motor mount. Disconnect the water lines.Remove motor and speed control from the hull.



Install the brushless motor mount to the brushless motor using the included 3mmX6mm machine screws.



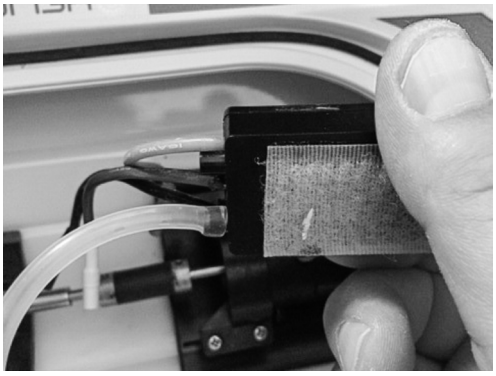
Install the brushless motor into the hull with the included 3mmX7mm screws. Make sure that the motor wires are facing up.



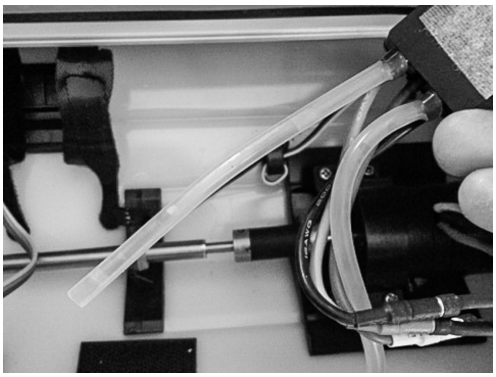
Install the new motor coupler making sure to align the flats with the setscrews.

Remove the water line and replace with new long water line.

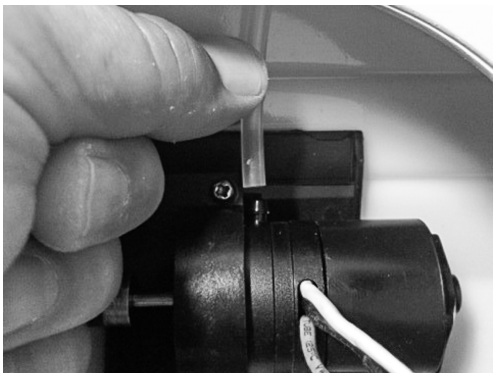
Reconnect the new water line to the water pickup tube.



Connect the new water line to the 40A brushless speed control.



Connect a short tube to the speed control and to the right side of the brushless motor.



Feed the other short tube through the side of the hull and connect to the left side of the brushless motor.

Connect the receiver plug to the throttle channel on the receiver and you are ready to go.

Setting Failsafe

The Rivos comes with the receiver failsafe set to NONE. In the event of loss of signal the motor will stop and the boat will drift. If the signal is regained normal function will return. If you wish to program the failsafe to a custom setting just follow these simple steps:

- With both the transmitter and receiver powered ON, press the bind button on the receiver for about 3 seconds.
- The receiver will enter the failsafe setting menu and the receiver LED will flash.
- You have about 3 seconds to move the controls to the position that you wish to program into failsafe.
- After the 3 seconds the receiver will save the settings and return to normal mode.
- If you wish to reset to a different setting, simply repeat the above steps.

Low Voltage Cutoff

The Rivos speed control is equipped with a low voltage cutoff (LVC) circuit. When the NiMh battery voltage drops to 5.6V the speed control will shut off power to the motor. Motor function can be restored by cycling the throttle trigger off and then back on at a low power setting. You must cease operating the boat and recharge the drive battery. Repeatedly attempting to continue operation may drop the battery voltage to damaging levels.

Maintenance and Inspection

Check for excess water in the hull after everyuse. If you do find excess water in the hill, pay special attention to installing the top hatch, ensuring a tight seal.

Always unplug the battery after each use and charge it outside of the hull.

After use, store the boat in the shade or inside to prevent the sun fading the decoration.

Never use chemicals to clean the boat as this may also damage the finish.

The boat is designed for fresh water use ONLY. If the boat comes in contact with brackish or salty water, remove battery and wash the boat throughly with fresh water as soon as possible to remove the salt residue.

After use clean the boat using fresh water. Make sure you dry the boat inside and out using a dry colth or paper towel. This will keep the hull and hatch of the boat looking clean and new.

When you are finished using the boat, make sure you remove the batteries from both the boat and the transmitter. This will prevent damage in the event of a battery leak.

The main prop shaft requires perodic lubrication with marine grease. See www.Helion-rc.com for maintenance updates and videos.

Rivos Spare Parts

HLNB0020	Rivos RTR boat
HLNB0021	Painted Hull: Rivos (Red)
HLNB0022	Painted Hull: Rivos (Blue)
HLNB0023	Painted Cover with Latch (Red): Rivos
HLNB0024	Painted Cover with Latch (Blue): Rivos
HLNB0025	Cover Latch: Rivos
HLNB0026	Water Cooling Tube: Rivos
HLNB0027	Rudder Pushrod: Rivos
HLNB0028	Rudder Parts Set: Rivos
HLNB0029	550 Replacement Motor: Rivos
HLNB0030	30A Replacement ESC: Rivos
HLNB0032	Prop Shaft: Rivos
HLNB0033	Propeller: Rivos
HLNB0034	Waterproof Replacement Servo: Rivos
HLNB0035	7.2V, 2600mAh NiMh Battery: Rivos
HLNB0036	BL Motor and BL ESC Upgrade Combo: Rivos
HLNB0037	1800KV Water-Cooled Brushless Motor: Rivos
HLNB0038	40A Water-Cooled, Water-Proof Brushless ESC: Rivos
HLNB0039	11.1 V, 3S 3600mAh 25C Lipo Upgrade Battery: Rivos
HLNB0040	7.2V 300mAh NiMh AC charger: Rivos
HLNB0041	Red Decal Sheet: Rivos
HLNB0042	Blue Decal Sheet: Rivos
HLNB0043	Brushed Motor Mount: Rivos
HLNB0044	Brushless Motor Mount w/ Motor Coupler: Rivos

HELION

Exclusively Available at HobbyTown
30 Day Limited Warranty

We warranty that the Product(s) purchased (the “Product”) will be free from defects in materials and workmanship when the product is new (before being used) for the limited warranty term period, 30 days, from the date of purchase by the Purchaser.

If you believe a defect in material, workmanship, etc. was not apparent when the Product was new and only became evident after the Product was used, take the following steps. If you purchased the Product at a HobbyTown store, please contact your local HobbyTown store for warranty support and/or service. If you purchased the Product from the Firelands website, use the contact information found under the Support heading to contact Firelands directly.

If you contact Firelands, you may be asked to send the product to Firelands, at your cost, for inspection. Provided the warranty conditions have been met within the warranty term period, the components that are found to be defective, incorrectly manufactured or assembled may be repaired or replaced, at the sole discretion of Firelands. Your warranty item will be returned to you at Firelands’ expense. In the event your product needs repair or a replacement part that is not covered by this warranty, your local HobbyTown store or Firelands can assist you with support and in obtaining the genuine replacement parts to repair your Product. Firelands will charge $40.00 per hour plus the cost of replacement parts to service your vehicle if after contacting you, you so authorize such repairs. Your product will be returned to you at your expense.

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